DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004631 Address: 333 Burma Road **Date Inspected:** 12-Nov-2008

City: Oakland, CA 94607

OSM Arrival Time: 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Hu Wei Qing No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG & Tower**

Summary of Items Observed:

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Sub-Assembly Bay 7:

The QA Inspector randomly observed ZPMC welder Hong Shui Li ID 048815, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G (Horizontal Groove) Position with ZPMC Weld Procedure Specification (WPS) WPS-345-FCAW-2G(2F)-FCM-Repair, to weld the 2 excavations in Weld Joint (WJ) 045 attaching the 30 millimeter (mm) Web Plate to the slotted Flange X7L on Floor Beam Wing Diaphragm FB011-013. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Hu Wei Qing, monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC Non-Destructive Testing (NDT) Technician Bo Tin Rui, utilizing the Magnetic Particle testing (MT) Method to perform a final MT Inspection on the cover pass of the welds on Floor Beam Wing Diaphragms FB009-018 (Side A), FB011-012 (Side A) and FB012-012 WJ 045. There appeared to be no indications and ZPMC QC accepted the above listed welds.

The QA Inspector performed a 10% final Visual (VT) and MT verification on the cover pass of all the welds on Floor Beam Wing Diaphragms FB009-018 (Side A), FB011-012 (Side A) and FB012-012 WJ 045. There appeared to be no indications the QA Inspector accepted all of the above listed welds.

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OBG Sub-Assembly Bay 8:

The QA Inspector randomly observed ZPMC Non-Destructive Testing (NDT) Technician Cai Xin Xin, utilizing the MT Method to perform a final MT Inspection on the the outside edge of Web Plate piece mark p244 of 28M Tower Double Diaphragm. The work was being performed in accordance with ZPMC Critical Weld Repair T-CWR029 to add 15 mm to Web Plate p244, to bring the overall length within contract required dimensions. There appeared to be no indications and ZPMC QC accepted the repair.

The QA Inspector randomly observed ZPMC Non-Destructive Testing (NDT) Technician Bo Tin Rui, utilizing the Magnetic Particle testing (MT) Method to perform a final MT Inspection on the cover pass of the welds on Floor Beam Diaphragms FB059-004 (Side A), FB062-001 (Side A), FB003-107 (Side A) and FB003-110 (Side B). There appeared to be no indications and ZPMC QC accepted the welds on the above listed Floor Beam Diaphragms.

The QA Inspector performed a 10% final Visual (VT) and MT verification on the cover pass of all the welds on Floor Beam Diaphragms FB059-004 (Side A), FB062-001 (Side A), FB003-107 (Side A) and FB003-110 (Side B). There appeared to be no indications and the QA Inspector accepted the welds on the above listed Floor Beam Diaphragms.



Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Josh Ishibashi 13764716411, who represents the Office of Structural Materials for your project.

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Inspected By: Franco, Charlie Quality Assurance Inspector **Reviewed By:** Wright, Mark QA Reviewer